WHAT IS CLAIMED IS:

1.     A system for generating a profile of particulate components of a body fluid sample comprising:

    (a)     a device for causing controlled flow of the body fluid sample on a substrate, said controlled flow of the body fluid sample leading to a differential distribution of the particulate components on said substrate; and

    (b)     a magnifying device being for providing a magnified image of differentially distributed particulate components on said substrate, said magnified image representing a profile of said particulate components of the body fluid sample.

2.     The system of claim 1, further comprising an imaging device being for capturing said magnified image provided by said magnifying device

3.     The system of claim 1, wherein said imaging device is a camera.

4.     The system of claim 2, further comprising an image analyzer being in communication with said imaging device, said image analyzer being configured for analyzing the profile of said particulate components in the body fluid sample.

5.      The system of claim 4, wherein said image analyzer communicates with a display for displaying said magnified image.

6.      The system of claim 4, wherein said image analyzer communicates with a printer for providing a printed output including said magnified image and/or data of an analyzed profile.

7.      The system of claim 4, wherein said communication between said image analyzer and said imaging device is effected through a communication network.

8.      The system of claim 4, wherein said communication between said image analyzer and said imaging device is effected through at least one communication server.

9.      The system of claim 8, wherein said at least one communication server forms a part of the World Wide Web.

10.     The system of claim 1, wherein said magnifying device is a light microscope or any device having an arrangement of optical elements capable of providing a magnified image.

11.    The system of claim 10, wherein said light microscope is selected from the group consisting of an inverted light microscope, a confocal microscope, and a phase microscope.

12.    The system of claim 1, wherein the body fluid sample is a peripheral blood sample.

13.    The system of claim 1, wherein the particulate components in the body fluid sample are selected from the group consisting of white blood cells, red blood cells, platelets, bacteria, hemoglobin and plasma proteins.

14.    The system of claim 1, wherein the profile of said particulate components in the body fluid sample is determined according to said differential distribution of said particulate components along at least one axis selected from the group consisting of an axis along a length of said substrate, an axis along a width of said substrate and an axis perpendicular to said substrate.

15.    The system of claim 1, wherein the profile of said particulate components in the body fluid sample is characterizable according to at least one parameter selected from the group consisting of estimated hemoglobin concentration, approximated leukocyte count and differential, approximated

platelet count, degree of leukocyte aggregation, aggregate composition, degree of leukocyte, erythrocyte and/or platelet adherence towards the surface of said substrate, degree of red cell aggregation, degree of platelet aggregation, degree of leukocyte to erythrocyte interaction, degree of erythrocyte to platelet interaction and degree of leukocyte to platelet interaction.

16.    The system of claim 1, wherein said substrate is a slide.

17.    The system of claim 1, wherein said substrate is coated with a molecule capable of binding a specific components of said particulate components.

18.    The system of claim 1, wherein said substrate is coated with at least two specific types of molecules each type being capable of binding a specific components of said particulate components.

19.    The system of claim 1, wherein said device for causing controlled flow of the body fluid sample on a substrate is a holder capable of holding said substrate in an essentially angled position.

20.     The system of claim 19, wherein said device for causing controlled flow of the body fluid sample on a substrate is a centrifuge.

21.     A system for generating a profile of particulate components of a body fluid sample comprising:

(a)     at least one apparatus for generating a profile of the particulate components of the body fluid sample, said at least one apparatus including:

(i)     a device for causing controlled flow of the body fluid sample on a substrate, said controlled flow of the body fluid sample leading to a differential distribution of the particulate components on said substrate; and

(ii)     a magnifying device being for providing a magnified image of differentially distributed particulate components on said substrate, said magnified image representing a profile of said particulate components of the body fluid sample, and

(iii)     an imaging device being for capturing said magnified image provided by said magnifying device;

(b)     an image analyzer being in communication with said at least one apparatus, said image analyzer being configured for analyzing the profile of said particulate components in the body fluid

sample; and

(c)     at least one communication server being for communicating said magnified image from said at least one apparatus to said image analyzer.

22.     The system of claim 21, wherein said imaging device converts said captured image into data communicable by said at least one communication server.

23.     The system of claim 21, wherein said image analyzer communicates with a display for displaying said magnified image.

24.     The system of claim 21, wherein said image analyzer communicates with a printer for providing a printed output including said magnified image and/or data of an analyzed profile.

25.     The system of claim 21, wherein said at least one communication server forms a part of the World Wide Web.

26.     The system of claim 21, wherein said magnifying device is a light microscope or a camera with magnification capabilities.

27.    The system of claim 21, wherein said light microscope is selected from the group consisting of an inverted light microscope, a confocal microscope, and a phase microscope.

28.    The system of claim 21, wherein the body fluid sample is a peripheral blood sample.

29.    The system of claim 21, wherein the particulate components in the body fluid sample are selected from the group consisting of white blood cells, red blood cells, platelets, hemoglobin, plasma proteins and bacteria.

30.    The system of claim 21, wherein the profile of said particulate components in the body fluid sample is determined according to said differential distribution of said particulate components along at least one axis selected from the group consisting of an axis along a length of said substrate, an axis along a width of said substrate and an axis perpendicular to said substrate.

31.    The system of claim 21, wherein said image analyzer includes a processing unit executing a software application designed and configured for analyzing and optionally characterizing the profile of said particulate components of the body fluid sample according to at least one parameter

selected from the group consisting of estimated hemoglobin concentration, approximated leukocyte count and differential, approximated platelet count, degree of leukocyte aggregation, aggregate composition, degree of leukocyte, erythrocyte and/or platelet adherence towards the surface of said substrate, degree of red cell aggregation, degree of platelet aggregation, degree of leukocyte to erythrocyte interaction, degree of erythrocyte to platelet interaction and degree of leukocyte to platelet interaction.

32. The system of claim 21, wherein said substrate is a slide.

33. The system of claim 21, wherein said substrate is coated with a molecule capable of binding a specific components of said particulate components.

34. The system of claim 21, wherein said substrate is coated with at least two specific types of molecules each being capable of binding a specific components of said particulate components.

35. The system of claim 21, wherein said device for causing controlled flow of the body fluid sample on a substrate is a holder capable of holding said substrate in an essentially angled position.

36.     The system of claim 21, wherein said device for causing controlled flow of the body fluid sample on a substrate is a centrifuge.

37.     A method of generating a profile of particulate components in a body fluid sample comprising the steps of:

(a)     causing controlled flow of the body fluid sample on a substrate, said controlled flow of the body fluid sample leading to a differential distribution of the particulate components on said substrate; and

(b)     providing a magnified image of differentially distributed particulate components on said substrate, said magnified image representing a profile of said particulate components in the body fluid sample.

38.     The method of claim 37, further comprising the step of analyzing and optionally characterizing the profile representing said particulate components in the body fluid sample according to at least one parameter selected from the group consisting of estimated hemoglobin concentration, approximated leukocyte count and differential, approximated platelet count, degree of leukocyte aggregation, aggregate composition, degree of leukocyte, erythrocyte and/or platelet adherence towards the surface of said substrate, degree of red cell aggregation, degree of platelet aggregation, degree of

leukocyte to erythrocyte interaction, degree of erythrocyte to platelet interaction and degree of leukocyte to platelet interaction.

39. The method of claim 38, wherein the step of analyzing and optionally characterizing the profile representing said particulate components in the body fluid sample is used for determining a presence or absence of, a clinical condition in an individual.

40. The method of claim 38, wherein the step of analyzing and optionally characterizing the profile representing said particulate components in the body fluid sample is used for determining the efficiency of a treatment regimen.

41. The method of claim 38, wherein the step of analyzing and optionally characterizing the profile representing said particulate components in the body fluid sample is used for diagnosing a disorder in an individual.

42. The method of claim 39, wherein said clinical condition is caused by an agent selected from the group consisting of an infective agent and a chemical agent.

43.    The method of claim 39, wherein said clinical condition is caused by a disorder selected from the group consisting of atherosclerosis, diabetes viral infection and bacterial infection.

44.    The method of claim 38, further comprising the step of converting said magnified image into data prior to said step of analyzing.

45.    The method of claim 37, wherein said body fluid sample is a peripheral blood sample.

46.    The method of claim 37, wherein said step of causing controlled flow of said body fluid sample on a substrate is effected by a holder capable of holding said substrate in an essentially angled position, or by a centrifuge.

47.    The method of claim 37, further comprising staining the particulate components on said substrate prior to step (b).

48.    A method of determining an atherosclerosis risk factor of an individual, the method comprising the steps of:

    (a)    causing controlled flow of a body fluid sample obtained from the individual on a substrate, said controlled flow of said body fluid sample leading to a differential distribution of particulate

components included in said body fluid sample on said substrate;

(b)     providing a magnified image of differentially distributed particulate components on said substrate, said magnified image representing a profile of said particulate components in the body fluid sample;

(c)     analyzing at least one parameter of said profile to thereby determine the atherosclerosis risk factor of the individual.

49.     The method of claim 48, wherein said at least one parameter is selected from the group consisting of a number of white blood cells, leukocytes adhesiveness/aggregation state (LAAT) and erythrocytes adhesiveness/aggregation state (EAAT).

50.     The method of claim 48, further comprising the step of converting said magnified image into data prior to said step of analyzing.

51.     The method of claim 48, wherein said body fluid sample is a peripheral blood sample.

52.     The method of claim 48, wherein said step of causing controlled flow of said body fluid sample on said substrate is effected by a holder

capable of holding said substrate in an essentially angled position or a centrifuge.

53. The method of claim 48, further comprising staining the particulate components included in said body fluid sample prior to step (b).

54. A method of generating a profile of a body fluid sample comprising the steps of:

    (a) causing controlled flow of the body fluid sample on a substrate, said controlled flow of the body fluid sample leading to a distribution of the body fluid sample on said substrate; and

    (b) determining a thickness variance of the body fluid sample along a direction of said controlled flow on said substrate, said thickness variance representing a profile of the body fluid sample.

55. The method of claim 54, further comprising the step of analyzing and optionally characterizing particulate components of said body fluid sample in at least one specific region of said substrate.

56. The method of claim 55, wherein said step of analyzing and optionally characterizing particulate components in said body fluid sample is

effected according to at least one parameter selected from the group consisting of estimated hemoglobin concentration, approximated leukocyte count and differential, approximated platelet count, degree of leukocyte aggregation, aggregate composition, degree of leukocyte, erythrocyte and/or platelet adherence towards the surface of said substrate, degree of red cell aggregation, degree of platelet aggregation, degree of leukocyte to erythrocyte interaction, degree of erythrocyte to platelet interaction and degree of leukocyte to platelet interaction.

57.     The method of claim 54, wherein said profile of the body fluid sample is used for determining a presence or absence of a clinical condition in an individual.

58.     The method of claim 55, wherein the step of analyzing and optionally characterizing particulate components of said body fluid sample in said at least one specific region of said substrate is used for diagnosing a disorder in an individual.

59.     The method of claim 56, wherein said clinical condition is caused by an agent selected from the group consisting of an infective agent and a chemical agent.

60. The method of claim 56, wherein said clinical condition is caused by a disorder selected from the group consisting of atherosclerosis, diabetes viral infection and bacterial infection.

61. The method of claim 54, wherein said body fluid sample is a peripheral blood sample.

62. The method of claim 54, wherein said step of causing controlled flow of said body fluid sample on a substrate is effected by a holder capable of holding said substrate in an essentially angled position, or by a centrifuge.

63. A carrier comprising a plurality of lanes each occupying a length, and a portion of a width, of a surface of the carrier, each lane of said plurality of lanes being coated with a specific molecule capable of binding a specific cell type present in a biological sample.

64. The carrier of claim 63, wherein the carrier is designed and configured for placement in a microscope stage.